Evaluation of risk factors for knee osteoarthritis in patients with knee pain complaints

Abstract

Background and Objective: Knee osteoarthritis is an important factor for pain and disability in the population. In this study, we investigated the risk factors of primary knee osteoarthritis in patients with knee pain complaints and their relationship with knee osteoarthritis.

Methods: The sample consisted of two case and control groups with a mean age of 87 in each group. Samples were selected from female patients under 50 years of age who referred to Imam Khomeini Hospital or Royan Ardabil Specialty Clinic for 6 months (April to September 1397) with complaints of knee pain. The control group was also selected from patients younger than 50 years of age who referred to Imam Khomeini hospital clinics at the same time when they complained of knee pain but had no radiographic findings in favor of osteoarthritis. The data were entered into SPSS statistical software and were analyzed using Pearson correlation test, Chi-square test and independent T-test.

Results: Examination of the relationship between the variables affecting knee osteoarthritis revealed that the degree of knee osteoarthritis was not correlated with ESR, type of toilet used, stair usage, use of walking aids and type of residential home. The study also found that the degree of knee osteoarthritis was significantly correlated with body mass index (P = 0.001). P value of 0.01 was also found to be significantly associated with CRP with primary knee osteoarthritis. According to the findings of the statistical analysis in the present study, it was found that the degree of knee osteoarthritis was significantly correlated with higher education. However, as the level of education increased, the degree of knee osteoarthritis decreased (P = 0.022). It was also found that increased circadian activity was significantly associated with increased degree of knee osteoarthritis (P = 0.032).

Conclusion: The degree of knee osteoarthritis is correlated with body mass index, education, CRP index, and circadian activity.

Keywords: Osteoarthritis, Body mass index, Knee pain